

In the Claims

1. (Currently Amended) A method for designing filters that approximates the circularly symmetric frequency response achievable using a non-separable filter comprising:

(a) selecting a cut-off frequency and designing therefrom a ~~1-D one-dimensional~~ separable low pass filter (LP), LP being a row vector having entries ~~LP such that: LP =~~ $[X_{-n}, X_{-(n-1)}, \dots, X_0, \dots, X_{n-1}, X_n]$;

(b) obtaining a ~~2-D two-dimensional~~ filter LPP by performing the operation: $LP^* \times LP$, wherein LP^* is ~~being~~ a column vector having the same entries as LP , and LPP having dimensions given by: $\{2n+1, 2n+1\}$;

~~(c) and generating a 2-D two-dimensional contour contour plot for the two-dimensional filter LPP therefor;~~

~~(d)(e)~~ designing a ~~1-D one-dimensional~~ separable high pass filter (HP), HP being a row vector having entries ~~such that: HP =~~ $[Y_{-m}, Y_{-(m-1)}, \dots, Y_0, \dots, Y_{m-1}, Y_m]$;

~~(e)(d)~~ obtaining a ~~2-D two-dimensional~~ filter HPP by performing the operation: $HP^* \times HP$, wherein HP^* is ~~being~~ a column vector having the same entries as HP , and HPP having dimensions: $\{2m+1, 2m+1\}$;

~~(f) and obtaining generating a 2-D two-dimensional contour plot for the two-dimensional filter HPP therefor; (e) repeating (c) through (d) until the 2-D contour plot of HPP overlaps the 2-D contour plot of LPP;~~

~~(g)(f)~~ generating a ~~2-D two-dimensional~~ filter (ONE) when the two-dimensional contour plot for the two-dimensional separable filter LPP overlaps the two-dimensional contour plot for the two-dimensional separable filter HPP, ONE having the same dimensions of that of HPP with the only non-zero entry of value 1 being located at the center of ONE;

~~(h)(g)~~ creating matrix HPP_{inv} by subtracting HPP from ONE to create matrix HPP_{inv} ;

~~(h)(g)~~ convolving LPP with HPP_{inv} to obtain DSCRN having dimensions: $\{2m+2n+1, 2m+2n+1\}$;

(i) ~~and obtaining~~ generating a 2-D two-dimensional contour plot for DSCRN therefor; and

(i)(i) constructing a filter to eliminate moiré in a rendered image when repeating
(a) through (h) until, ~~by an examination of the 2-D two-dimensional contour plot of for~~
DSCRN, is an approximation to a desired circular symmetry is achieved, the filter being
constructed of LLP and HHP.

Claims 2-6 (Cancelled)